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Letter to the Editor

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Treatment and management approaches in sternoclavicular joint dislocation

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Dear Editor,

Sternoclavicular joint (SCJ) dislocations are rare but significant injuries that, if not properly managed, can lead to severe complications. Given the joint's connection to both the upper extremity and thoracic structures, posterior dislocations, in particular, must be approached with caution due to their close proximity to vital structures such as major vessels, the trachea, and the esophagus. The literature indicates that posterior dislocations may result in tracheal, esophageal, and neurovascular injuries in 30% of cases, with mortality rates reported as high as 3-4%.[1]

SCJ dislocations require different management approaches depending on the direction of the dislocation. Anterior dislocations are typically managed with closed reduction and conservative methods, whereas posterior dislocations often necessitate surgical intervention due to their proximity to critical structures. Posterior dislocations generally result from motor vehicle accidents, high-energy trauma, or sports injuries, and diagnosing them in the early stages can often be challenging. In such cases, prompt intervention has a direct impact on the patient's prognosis.[2]

There are various approaches in the literature regarding the choice of treatment methods. In the study by Oladeji et al.,[3] it is emphasized that surgical stabilization is of great importance in the management of posterior SCJ dislocations. The study highlights that in cases where both the SCJ and acromioclavicular joint require stabilization following high-energy trauma, a surgical approach should be prioritized. This study also draws attention to the use of biological grafts in surgical interventions, which improve long-term success rates for joint stabilization.

In the diagnostic process, the use of appropriate imaging techniques plays a crucial role. Standard radiographs often fail to clearly depict such dislocations. The Serendipity radiograph emerges as an especially effective method in detecting posterior dislocations.[4] However, computed tomography (CT) is preferred for the definitive diagnosis of these dislocations. CT provides a three-dimensional evaluation of the SCJ, clarifies the direction of the dislocation, and offers critical information that guides surgical intervention.[5]

Posterior SCJ dislocations that require surgical intervention call for a multidisciplinary approach. Ingoe et al.[6] state that careful planning is necessary in the surgical management of posterior dislocations due to the risk of major vascular injuries. It is recommended that surgical interventions in such cases be performed by multidisciplinary teams. Posterior dislocations, particularly those related to mediastinal structures, should be managed with the collaboration of cardiothoracic surgeons and orthopedic specialists.

In clinical practice, various techniques are used for the surgical management of posterior dislocations. Studies in the literature report that reconstructions with grafts increase joint stabilization and positively affect long-term functional outcomes. Although cases where posterior dislocations are successfully treated with closed reduction are limited, this method is frequently preferred as the first line of intervention. In cases where closed reduction is unsuccessful, surgical intervention is recommended to achieve joint stabilization.[7]

During the treatment process, both surgical and conservative treatment options should be evaluated based on the type and severity of the dislocation. In particular, surgical intervention plays a critical role in reducing the risk of complications in posterior dislocations and improving the long-term prognosis of patients. Additionally, timely surgical intervention in cases where closed reduction fails is essential for ensuring patient safety.[8]

In conclusion; a multidisciplinary approach and the implementation of appropriate treatment methods in the management of SCJ dislocations are crucial for reducing complication rates and improving long-term functional outcomes. In the management of these rare dislocations, the correct timing of surgical interventions and careful execution of diagnostic processes directly influence patient outcomes.

ETHICAL DECLARATIONS

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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